metric scale to show the smaller undulations. These are really the most important ones, as they often occur during fine weather when the storm may be hundreds of miles distant. Then again I have found ordinary observers allow too much friction between the pen and paper, and often do not keep the pen point as fine as it should be. For this and many other reasons I have made a strong plea for the universal introduction of extra sensitive barographs with open scale, and teach those in charge the true value of these minute undulations. I find these secondary tidal undulations beautifully recorded upon the Esquimalt gauge sheets, and now that my large hydro-aerograph has arrived I hope to make a minute study of this phenomenon in the Victoria Harbor.

METEOROLOGICAL REPORTS BY CABLE FROM ICELAND.

In 1880 Hoffmeyer gave utterance to the oft expressed conviction of many meteorologists that daily telegraphic reports from Iceland would be of inestimable value in weather predictions for Great Britain and northern Europe. This subject has been favorably reported upon several times by the International Meteorological Committees and Congresses (Berne, 1880; Copenhagen, 1882; Munich, 1891; etc.) The commercial intercourse with Iceland would, however, evidently not pay the interest on the cost of the cable, and it is only quite lately that the Danish meteorologists have received from business men a proposition that makes the project seem at all feasible.

The "Grande Compagnie des Télégraphes du Nord," having its center at Copenhagen, calculates that the expense of the installation of the cable from Shetland, touching the Faroe Islands and ending at Iceland, together with the land lines will be $600,000, and that an annual payment of $36,000 for twenty-eight years would liquidate this debt. The maintenance of the cable and stations adds $32,000, so that an annual revenue of $68,000 must be provided for.

The above-mentioned telegraph company will undertake to build and to maintain the line if it is guaranteed this annual revenue for the first twenty years only. The Government of Denmark and Iceland will establish and maintain the meteorological stations and the expense of daily telegraphic bulletins, and will perform the hydrographic work necessary in connection with the laying of the cable, and will also guarantee an annual subvention of $25,000 for twenty years. Therefore, all that now remains to be done in order to secure telegraphic communication with Iceland for commercial and meteorological purposes is to secure the remaining annual income of $41,000. It is hoped and believed that a large portion and perhaps all of this may be secured by national legislation in the States of Europe and America that are interested in this subject. The sums required from each of these would scarcely amount to the salary of one or two employees, and would be abundantly counterbalanced by the increase in our knowledge of the atmosphere and our ability to make predictions of storms and cold waves.

There is, in fact, no reason why the larger newspapers of the world should not also add their contributions as the news items will, of course, have a commercial value.

At present American meteorological services seem to be deeply interested in extending their own systems north, west, and south, rather than eastward.

THE INTERNATIONAL METEOROLOGICAL COMMITTEE.

The next meeting of the International Meteorological Committee has been called for the 25th of August, 1899, at St. Petersburg. The following are the members of the committee as selected by the International Conference, Paris, September, 1896. (See MONTHLY WEATHER REVIEW, October, 1896, p. 367):

E. Mascart, France, *President.*
Robert H. Scott, Great Britain, *Secretary.*
W. V. Bezold, Germany.
R. Billwiller, Switzerland.
J. de Brito-Capello, Portugal.
Walter R. Davis, Argentine Republic.
John Eliot, India.
Julius Hann, Austria.
Stefano Hépites, Roumania.
H. H. Hildebrandsson, Sweden.
H. Mohn, Norway.
Willis L. Moore, United States.
Adam Paulsen, Denmark.
H. C. Russell, New South Wales.
M. Rykatcheff, Russia.
M. Snellen, Russia.
P. Tacchini, Italy.

Vacancies occasioned by death or resignation may be filled by the committee. The committee may also invite others to take part in its discussions.

Besides this general International Committee there were several special committees appointed by the International Conference, such as the subcommittee on international telegraph service; the subcommittee on terrestrial magnetism and atmospheric electricity, whose last meeting was held at Bristol, England, August, 1898; the subcommittee on instruments and methods of observation; the subcommittee on clouds, under whose initiative a special work on this subject was conducted during the year July, 1897–98; the subcommittee on aeronautics, whose meeting at Strasburg in 1898 was reported upon by Mr. A. L. Rotch in the MONTHLY WEATHER REVIEW for April, 1898, p. 158.

The reports of these subcommittees and the questions thus far proposed for discussion by individual meteorologists are embodied in the following provisional program of the meeting to be held at St. Petersburg. This meeting of the General Committee will, also, undoubtedly, designate the time and place of the next general conference.

1. Report of M. Rücker on terrestrial magnetism and atmospheric electricity.
2. Report of M. Hildebrandsson on clouds.
3. Report of M. Hergesell on balloon ascensions.
4. Report of M. Violle on radiation and insolation.
5. Rykatcheff.—Is it desirable that the committee should occupy itself with observations of earthquakes?
6. von Bezold.—Antarctic explorations.
7. Hildebrandsson.—The centers of action of the atmosphere.
8. Rykatcheff.—Definition of the meteorological day.
9. Rykatcheff.—Instructions for the use of sunshine recorders.
10. Rykatcheff.—Rules for the determination of soil temperatures.
11. Rykatcheff.—Precautions to be taken in using alcohol thermometers.
12. Rykatcheff.—Symbol to be employed for designating low fog.
13. Rykatcheff.—Define the meaning of the symbols employed to designate storms.
14. von Bezold.—Protection of magnetic observatories against industrial electrical works.
15. Hann.—Proposition for the publication in a special form of the tables of the diurnal range of temperature in each country.
16. Hann.—Importance of actinometric observations.
17. Teisserenc de Bort.—Installation of anemometers.
18. Teisserenc de Bort.—Employment of carrier pigeons by the transatlantic steamers for conveying information as to the weather west of Europe.
19. Date of the next International Conference.

METEOROLOGY IN RUSSIA.

On the 13th of April, 1899 (April 2, according to the old style calendar as used in Russia), the Central Physical Observatory in St. Petersburg celebrates the fiftieth anniversary of its foundation. This will be made a notable festival occasion. The Czar and many of the highest dignitaries in diplo-